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EXAMINER NICKERSON, JEFFREY L.				
ART UNIT 2442		PAPER NUMBER		
NOTIFICATION DATE 04/26/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/562,046

Applicant(s)

KRUSE ET AL.

Examiner

JEFFREY NICKERSON

Art Unit

2442

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21, 22 and 24-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21, 22, 24-26, 28 and 36 is/are allowed.
- 6) ☒ Claim(s) 27 and 29-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ ~~Notice of Informal Patent Application~~
- 6) ☐ Other: _____

DETAILED ACTION

1. This communication is in response to Application No. 10/562,046 filed nationally on 11 April 2006 and internationally on 10 April 2004. The Appeal Brief presented on 13 October 2009 is hereby acknowledged. Claims 21-22 and 24-36 are currently pending and have been examined.

Response to Appeal Brief

2. In view of the appeal brief filed on 31 May 2008, PROSECUTION IS HEREBY REOPENED.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing at the conclusion of this Action.

Claim Objections

3. Claim 33 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Regarding claim 33, this claim recites material found within parent independent claim 27.

4. Claims 21-22, 24-26, 28 and 36 are objected to under 37 CFR 1.75(d)(1) because of an improper use of antecedent basis.

Regarding claim 21, this claim contains the phrase "it" in the stanza beginning "wherein the client application...", which should be "the client application". This claim further contains the phrase "said function" in the stanza beginning "calling, by the client...", which should be "said client logging function". This claim further contains the phrase "a name of an event in question" in the same stanza, which should be "an event name".

Regarding claim 22, this claim contains the phrase "events", which should be "detected events".

Regarding claim 26, this claim contains the phrase "this event", which should be "the event".

Claims not explicitly addressed inherit the objection(s) of their parent claim(s).

35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 27 and 29-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claim 27, this claim is directed to a "system" containing "a client" and "a server". No recitation of required structure has been identified within the claim language and, therefore, the claim may be directed entirely to software. A search of applicant's specification is silent with regard to definitions for "client" and "server" and, as such, must be given their broadest reasonable interpretation consistent with that of the state of the art. IEEE 100 dictionary defines a client as "an agent that requests services of a server". Server is defined as "an agent that provides services to a client". Thus, both the client and server may be software processes. Therefore the claim encompasses non-statutory subject matter. Explicitly reciting structure that allows the functionally descriptive components to be realized may overcome this rejection. See MPEP 2106.

Regarding claims 29-35, these claims do not cure the deficiencies of their parent claims and thus inherit the rejections.

35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Response to Arguments

8. Applicant's arguments, filed in the appeal brief dated 13 October 2009, have been fully considered and are persuasive. All outstanding rejections under 35 USC 103(a) are hereby withdrawn. However, new rejections may appear below.

Claim Rejections

9. Claims 27 and 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sondur et al (US 6,282,568 B1), and in further view of Allavarpu et al (US 7,010,586 B1).

Regarding claim 27, Sondur teaches a system for managing and transmitting events from a server via a communication link to at least one client (Sondur: abstract, Figure 4), said system comprising:

- at least one client (Sondur: Figure 4, client), comprising:

- at least one client event service (Sondur: Figure 4, JMI on client), for logging possible events and which uses a communication link to make requests for event transmission to a server event service (Sondur: Figure 8, item 800 and subcomponents; Figure 9, steps 902 and 904; col 14, lines 27-43 provides creating list of events in client JMI's MOHandle object and registering with server JMA's MOHandle Implementation);

- a server (Sondur: Figure 4, server), comprising:

- at least one server event service (Sondur: Figure 4, JMA on server), which has at least one server logging function for logging server callback functions (Sondur: col 5, lines 37-49 provides the server maintains callbacks) and for logging possible events and which uses a communication link to transmit events to the client event service (Sondur: col 5, lines 37-49 provide the callback is for transmitting event to the client's JMI; Figure 8, item 814 into 804);

- a dispatcher for transmitting received events to a client application (Sondur: Figure 8, item 814; col 14, lines 49-57 for dispatching events to client service and then application); and

- at least one installation interface which transfers events which have occurred to the at least one server event service (Sondur: Figure 6, 608 into 606/610; Figure 8, 816 into 812; col 14, lines 44-48 for sending event to server's JMA's eventhandler); and

wherein a table is a hash table (Sondur: col 14, lines 49-57) and

wherein a notifier is a pointer to a server callback function (Sondur: col 14, lines 27-43 provides for notification via callbacks; See also col 5, lines 37-49).

Sondur does not teach wherein a dispatcher is at least one event queue for holding entries which describe a respective event; or

at least one server event table for holding data records which describe a respective logging operation, which server event table holds data records which contain at least one event identifier and notifier handler which is to be logged.

Allavarpu, in a similar field of endeavor, teaches wherein a dispatcher is at least one event queue for holding entries which describe a respective event (Allavarpu: Figure 4, steps 412-414; col 14, line 53 – col 15, line 13 provides for using event queue to dispatch events to clients); and

at least one event table for holding data records which describe a respective logging operation (Allavarpu: Figure 3, item 320; col 7, lines 29-49 provide for the server maintaining client subscriptions/registrations), which server event table holds data records which contain at least one event identifier (filter information) and a notifier (event port) which is to be logged (Allavarpu: Figure 3, item 320; col 7, lines 29-49 provides the registrations maintain filters based on event information; See also col 8, lines 13-20 for EDS sink looking up the event port for notifying).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Allavarpu for maintaining event queues and an event lookup table. The teachings of Allavarpu, when implemented in the

Sondur system, will allow one of ordinary skill in the art to maintain multiple dispatchers with queues, and to filter events at the server side. One of ordinary skill in the art would be motivated to utilize the teachings of Allavarpu in the Sondur system in order to enforce access policies on event subscriptions (Allavarpu: col 7, lines 29-49) and ensure events are distributed in the order in which they were generated (Allavarpu: col 8, lines 50-54).

Regarding claim 29, the Sondur/Allavarpu system teaches wherein the installation interface is connected to a data capture unit of a technical installation in order to read events detected by the data capture unit (Sondur: Figure 6, items 612, 614; col 4, lines 53-67; col 9, lines 52-61 for devices being connected to MIS).

Regarding claim 30, the Sondur/Allavarpu system teaches wherein the server event service has at least one server callback function which cab be logged for at least one event and which is called when an event for which it is logged occurs (Sondur: col 5, lines 37-49 for registering server callbacks for events).

Regarding claim 31, the Sondur/Allavarpu system teaches wherein the server event service has, for every client event service with which it communicates via a communication link, a separate client data record which respectively contains at least one server event table (filter and port registration) and at least one event queue (sink)

(Allavarpu: col 8, lines 13-20 provides there may be a 1-1 mapping between sinks and clients; col 13, lines 12-23 provides each client has one event port).

Regarding claim 32, the Sondur/Allavarpu system teaches wherein the server event service has a tidying function which deletes the client data record if the associated client event service is not longer communication with the server event service (Allavarpu: col 15, line 50 – col 16, line 11 provides for removing the port and sink's consumer).

Regarding claim 33, this claim contains limitations found within that of claim 27.

10. Claims 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sondur et al (US 6,282,568 B1); in view of Allavarpu et al (US 7,010,586 B1); and in further view of Barker et al (US 6,363,421 B2).

Regarding claim 34, the Sondur/Allavarpu system teaches wherein the client event service has at least one client logging function for logging client callback functions (listeners), and at least one client event table for holding data records which describe the log (Sondur: col 14, lines 27-43 provides the MOHandle has a list of all listener and event types); and

at least one request generator for making requests for event transmission (Sondur: Figure 9, steps 900-904; col 14, lines 27-43 provides for registering for events

via event listener creation; Allavarpu: col 7, lines 29-49 provide for standard polling for events).

The Sondur/Allavarpu system does not teach wherein the requests are cyclic.

Barker, in a similar field of endeavor, teaches wherein the requests are cyclic (Barker: col 19, lines 48-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Barker for clients periodically polling the event queues. The teachings of Barker, when implemented in the Sondur/Allavarpu system, will allow one of ordinary skill in the art to have clients request for an event for their event queue. One of ordinary skill in the art would be motivated to utilize the teachings of Barker in the Sondur/Allavarpu system in order to allow clients to determine when to receive events.

Regarding claim 35, the Sondur/Allavarpu/Barker system teaches wherein the client event table is in the form of a hash table and holds data records which contain at least one event identifier (event type) and a pointer to a client callback function (listener) which is to be logged (Sondur: col 14, lines 49-57 for tables being hash tables; col 14, lines 27-43 for MOHandle maintaining the event types and listeners).

Allowable Subject Matter

11. Claims 21-22, 24-26, 28, and 36 are allowed.
12. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to render obvious one or more of the claimed features of claim 21.

Citation of Pertinent Prior Art

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- a. Chan et al (US 6,230,160 B1) discloses event proxies on clients and servers.
 - b. Lauzon et al (US 2004/0030775 A1) discloses an event notification service for clients and servers.
 - c. Niemi et al (US 6,470,388 B1) discloses an event logging service layer for monitored devices.
 - d. Prabhu (US 2004/0226022 A1) discloses local alarm proxy for clients and talking to managing servers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY NICKERSON whose telephone number is (571)270-3631. The examiner can normally be reached on M-Th, 9:00am - 7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571)272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. N./
Examiner, Art Unit 2442

/P. C. L./
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/Jeffrey Pwu/
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